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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,726	12/24/2003	Toshinori Tanaka	Q79154	8314

23373 7590 05/17/2005

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EXAMINER
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LUM VANNUCCI, LEE SIN YEE

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/743,726

Applicant(s)

TANAKA ET AL.

Examiner

Lee Lum

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*HL*

## DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 4** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the second paragraph, "a gap" is unclear. Subsequent language defines it as "between outer [and inner diameters] of the receiving portion" which is unclear because this description can be interpreted to mean the material, or thickness, of the "receiving portion", which is clearly not "the gap". Clarification is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- A. **Claims 1, 2, 4 and 7** (4 as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima et al 6447271 in view of Eda et al 6044723.

Re **Claims 1, 2 and 7**, Ojima discloses an electro-hydraulic power steering apparatus\* comprising

Motor 1 (fig 1) having rotating shaft (unidentified) and bearings 5,  
Hydraulic pump (fig 15) disposed at one end of the shaft, and driven by the motor (c9, In 15-22),  
Control circuit (unidentified, c5, In 46-49) for the motor disposed between the motor and pump.

The reference does not disclose elastic bodies supporting the bearings, while Eda shows, in figs 8A-C,

First elastic body 512 (as identified in fig 8A; body towards the left of bearing) for supporting bearing 8a,

Second elastic body 510 for pressing the bearing in an axial direction,

The two bodies integrally formed (i.e., formed as a unit to support the bearing).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include the elastic bodies, as shown in Eda, to ensure a secure fit between the bearings, shaft and casing, thus maximize proper operation of the motor, and minimize wear due to a poor fit. This arrangement is extremely well-known for these objectives.

\* This "apparatus" is not described in the body of the claim to differentiate it from other mechanisms having a motor-driven pump. Therefore, this description is given little patentable weight.

Re **Claim 4**, Ojima further discloses the bearing(s) as including an outer ring, this element being unidentified in fig 15, but is the outer race of bearing 13.

However, Ojima does not disclose a receiving portion containing a bearing and the two elastic bodies, while Eda shows this arrangement in fig 8A, with a middle portion of the casing 1, containing bearing 8a, serving as the receiving portion. *As best understood*, a "gap" in this portion also contains the elastic bodies (fig 8B as enlarged view).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Eda, to accommodate the bearings and elastic bodies in a secure fit, thus maximizing proper operation of the motor.

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B. **Claims 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima in view of Eda, and in further view of Watanabe et al .

Re Claim 5, the previous references do not disclose the second elastic body as a disc spring, while Watanabe shows this type of elastic body 23 (c8, ln 18-19). While Eda's O-ring is functionally equivalent, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this alternate type, as shown in Watanabe, for providing a different type of elasticity, and physical form, for the particular application.

Re Claim 6, Eda, in fig 8B, further discloses the second elastic body 510 as pressing the first elastic body in an axial direction.

4. The prior art considered pertinent to the disclosure, but not relied upon, include(s):  
Tsutsui et al 6763738, Ozsoylu et al 6523431, Henein et al 5360322.

5. Communication with the Examiner/USPTO

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272-6649, M-F, 9-5. If she cannot be reached, her supervisor, Ms. Lesley Morris, may be reached at 571 272-6651. Our central fax number is 703 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. For unpublished applications - private PAIR only. For published applications - private or public PAIR. For more information re PAIR - <http://pair-direct.uspto.gov>. Questions re private PAIR - contact the Electronic Business Center (EBC) at 866 217-9197.

Ms. Lee S. Lum-Vannucci  
Examiner  
4/27/05

A handwritten signature in black ink, appearing to read 'Lum-Vannucci', with a stylized flourish at the end.